

Abstract

Fuel-, ballast-, utility- or freight-tanks of ships are  
5 frequently equipped with an open sounding tube, which  
serves for the mechanical sounding of the fill level of  
the medium in the tank. In the case of fill level  
measurements in the sounding tube with measuring  
devices, which work with microwave signals, it has been  
10 found that the wanted signals can be superimposed in a  
lower region of the sounding tube by strong disturbance  
signals, which come from the tank floor.

In order to be able to determine reliably the fill  
15 level of the medium reliably in a tank equipped with  
such a sounding tube (12) also by means of a microwave  
fill level measuring device, the invention provides an  
arrangement which includes a deflecting device (24) for  
deflecting the microwave signals in an end region (22)  
20 of the sounding tube. So that it will still be  
possible to perform sounding measurements in such tank  
using a mechanical sounding device, a microwave-  
transmissive support (34) is provided for the plumb  
device in the region of the deflecting device (24).

25

(Fig.

5)

## Reference Characters

- 10 arrangement
- 5 12 sounding tube
- 14 upper end of the sounding tube
- 16 adapter for fill level measuring device
- 18 microwave fill level measuring device
- 20 Y-adapter
- 10 22 lower end of sounding tube
- 24 deflecting plate (first kind)
- 26 angular deflecting plate (second kind)
- 28 holder for angular deflecting plate
- 30 clamp
- 15 32 support, with holes
- 34 window
- 36 rim for holding window
- 50 tank
- 52 tank roof
- 20 54 tank floor
- 56 signal path
- 58 medium